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EXAMINER

SAJOUS, WESNER

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 01/07/2004

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/641,930

Applicant(s)

VALMIKI ET AL.

Examiner

Wesner Sajous

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 is/are allowed.
- 6) ☒ Claim(s) 1,3-10,14-22 and 26 is/are rejected.
- 7) ☒ Claim(s) 11-13,23-25 and 27-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 09/641,930
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This communication is responsive to the amendment and response filed on 5/14/2003.

Claims 1-30 are presented for examination.

Allowable Subject Matter

1. The indicated allowability of claims 3-15 is withdrawn in view of the newly discovered reference(s) to Oh (US Pat. 6459456). Rejections based on the newly cited reference(s) follow. The Examiner apologizes for the inconvenience that may cause your party.

Response to Arguments

2. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 27-30 are objected to because of the following informalities: In claim 27, the Applicant to clearly define the claimed invention, is required to insert, after "boundary" the phrase "in an external memory". Appropriate correction is required.

Claims 28-30 are objected to for the same reason as claim 27, by dependence.

Art Unit: 2676

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al., US Pat. No. 5923385, hereinafter Mills, in view of McGee et al. (McGee), Pat. No. 6496228.

Considering claim 1, Mills, at fig. 1, discloses a video transport processor comprising:

an input (20) for receiving one or more compressed data streams (*i.e.*, *MPEG-2 transport streams including compressed audio, video, and other data or elementary stream data, see col. 8, lines 48-56*); and means for extracting MPEG video data from the compressed data streams (*is met by items 50 and 52 of fig. 1, see col. 9, lines 29-40, and col. 10, lines 24-25*).

It is noted that Mills fails to disclose the means for storing MPEG video data in an external memory and means generating a table of MPEG start codes table to index and access the MPEG video data stored in the external memory during decoding of the MPEG video data.

Nonetheless, McGee, in a similar art, teaches the means for storing MPEG video data in an external memory (*i.e.*, a hard disk, see col. 3, lines 35), and means (205) for generating a table of MPEG start codes table (216, fig. 2A) to index and access the

Art Unit: 2676

MPEG video data stored in the external memory during decoding of the MPEG video data. See col. 4, lines 36-47, and col. 15, lines 27-39.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Mills' system to include the feature of McGee. The modification would have been for the purpose of providing a video analysis system that support visual content extraction for source video which may include informative programs. See McGee's col. 2, lines 1-4.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 3-4, 6-7, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Oh.

Considering claim 3, Oh, at figs. 1-2, discloses the functional equivalence for a system comprises a core transport processor (device A and 180) for receiving a plurality of compressed data streams (via items 100, 110); a first and a second satellite transport processors (120/140, and 130/150) for receiving at least one or more compressed data streams and for extracting video data and audio data (see col. 2, lines 52-62),

Art Unit: 2676

respectively, wherein the core transport processor (i.e., device A and 180) provides data related to the compressed data streams to at least one of the first and the second satellite transport processors (120/140 and 130/ 150).

As per claim 4, Oh, at fig. 1, discloses the functional equivalence for the core transport processor, the first and the second satellite transport processors are [inherently] integrated on an integrated circuit chip.

As per claim 6, Oh, at fig. 1, discloses the functional equivalence for the data related to the compressed data streams include clock reference data (see col. 3, lines 34-44).

As per claim 7, Oh, at fig. 1, discloses the functional equivalence for the plurality of compressed data streams include one or more MPEG transport streams (i.e., items 120/140 and 130/150).

The invention of claim 16 contains features that are substantially equivalent in functions with the limitations recited in claim 3. As the limitations of claim 3 have found to be anticipated by the teaching concept of Oh, it is readily apparent that the applied prior art performs the underlying functions and elements. As such, the limitations of claim 16 are rejected under the same rationale as claim 3.

8. Claims 3-4, 6-7, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Inoue (US Pat. 6467093).

Considering claim 3, Inoue, at fig. 1, discloses the functional equivalence for a system comprises a core transport processor (10) for receiving (132) a plurality of

Art Unit: 2676

compressed data streams; a first satellite transport processors (141 and 143) for receiving and for extracting video data, a second satellite transport processors (141 and 144) for receiving and for extracting audio data, wherein the core transport processor provides data related to the compressed data streams to at least one of the first and the second satellite transport processors. See col. 2, line 17 to col. 9, line 38.

As per claim 4, Inoue, at fig. 1, discloses the functional equivalence for the core transport processor, the first and the second satellite transport processors are [inherently] integrated on an integrated circuit chip.

As per claim 6, Inoue, at fig. 1, discloses the functional equivalence for the data related to the compressed data streams include clock reference data. Note that it is typical in the art for streams of data associated EPG to contains clock reference data, in order to determine the arrival of each channel programming.

As per claim 7, Oh, at figs. 1-2, discloses the functional equivalence for the plurality of compressed data streams include one or more MPEG transport streams (see col. 7, lines 54-67).

The invention of claim 16 contains features that are substantially equivalent in functions with the limitations recited in claim 3. As the limitations of claim 3 have found to be anticipated by the teaching concept of Inoue, it is readily apparent that the applied prior art performs the underlying functions and elements. As such, the limitations of claim 16 are rejected under the same rationale as claim 3.

Claim 18 contains features that are substantially equivalent to the limitation recited in claim 6, it is, therefore, rejected under the same rationale as claim 6.

Art Unit: 2676

Claim 19 contains features that are substantially equivalent to the limitation recited in claim 7, it is, therefore, rejected under the same rationale as claim 6.

8. Claims 5, 9, 17, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh or Inoue in view of McGee et al. (McGee), Pat. No. 6496228.

As per claim 5, Inoue or Oh discloses most claimed features of the invention, as applied to claim 3, but they fail to teach storing video data in a memory block and generate a start code table to index the video data stored in the memory block.

Nonetheless, McGee, in a similar art, teaches storing video data in a memory block and generate a start code table to index the video data stored in the memory block. See col. 3, lines 35, col. 4, lines 36-47, and col. 15, lines 27-39.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Mills' system to include the feature of McGee. The modification would have been for the purpose of providing a video analysis system that support visual content extraction for source video which may include informative programs. See McGee's col. 2, lines 1-4.

As per claim 9, McGee teaches the plurality of compressed data streams include at least one MPEG-2 transport stream. See col. 4, lines 7-16.

Claim 17 contains features that are substantially equivalent to the limitation recited in claim 5, it is, therefore, rejected for the same reason.

Claim 21 is rejected for the same reason as claim 9.

Art Unit: 2676

9. Claims 10, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh or Inoue in view of McGee et al. (McGee), as applied to claims 3, 5 and 9, and further in view of Mills.

Re claim 10, Inoue or Oh discloses most claimed features of the invention, as applied to claims 3, 5 and 9, but they fail to teach MPEG-2 video decoder for reading the video data from a memory block and decoding the video data.

Mills teaches an MPEG-2 video decoder (54) for reading the video data from a memory block (56) and decoding the video data. See claim 9 for reason of obviousness.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system Oh or Inoue and McGee to include the feature of Mills, in order to represent hierarchically-organized compressed video, audio, and other program data. See Mills's col. 8, lines 53-60.

Claim 22 contains features that are substantially equivalent to the limitation recited in claim 10, it is, therefore, rejected for the same reason.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oh or Inoue in view of Auld.

As per claim 15, Inoue or Oh discloses most claimed features of the invention, as applied to claim 3, but they fail to teach that the video data includes at least one HDTV video.

Auld teaches video data includes at least one HDTV video. See fig. 1, and col. 3, lines 54-59.

Art Unit: 2676

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system Oh and Inoue to include the feature of Auld. The modification would have been for the purpose of providing a TV display system that displays images at high resolution.

Art Unit: 2676

11. Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh or Inoue in view of Adams (US Pat. 6124878)

Re claim 8, Inoue or Oh discloses most claimed features of the invention, as applied to claims 3 and 7, but they fail to teach MPEG data to include in-band stream and out-of-band stream.

Adams in a similar art teaches teach the functional equivalence for MPEG data to include in-band stream and out-of-band stream. See col. 3, lines 37-39, and col. 6, lines 4-9.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the systems of Oh and Inoue to include the feature of Adams, in order to provide optimum bandwidth utilization in a TV cable system's hared forward data channel. See Adams' col. 4, lines 1-3.

Claim 20 recites features that are equivalent in functions with the limitations of claim 8, it is, therefore, rejected for the same reason.

12. Claims 14 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh or Inoue in view of McGee et al. (McGee), Pat. No. 6496228, as applied to claims 5 and 9, and further in view of Devaney (US Pat. 6357045).

Art Unit: 2676

As per claim 14, Inoue or Oh and McGee render obvious most claimed features of the invention, as applied to claims 3, 5, and 9; but they fail to teach the concept of processing down to include a slice layer of at least one MPEG-2 transport stream.

Denavey, in a similar art, teaches the equivalence for processing down to include a slice layer of at least one MPEG-2 transport stream. See col. 6, lines 40-45.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the systems of Oh and Inoue and McGee to include the feature of Denavey, so as to provide an MPEG sequence of images.

Claim 26 contains features that are substantially equivalent to the limitation recited in claim 14, it is, therefore, rejected for the same reason.

Allowable Subject Matter

13. Claims 11-13, 23-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to overcome the Examiner's objection set forth in paragraph 3 above and to include all of the limitations of the base claim and any intervening claims.

14. Claims 2 and 27-30 are allowed over the prior art.

Reasons For Allowance

The following is an Examiner's Statement of Reasons for Allowance:

Art Unit: 2676

The present application has been thoroughly reviewed. Upon searching a variety of databases, the Examiner respectfully submits that the prior art of record (PTO-892) does not teach or suggest a transport processor system comprising, inter-alia, — a video transport processor that comprises for aligning a start of a plurality of SLICES of MPEG-2 video data to a suitable boundary in an external memory when storing the MPEG-2 video data in the external memory (as recited in claim 2); and a system comprising a satellite transport processor for receiving at least one of the compressed data streams received from the core transport processor and for extracting video data including a plurality of SLICES; and MPEG-2 video decoder for blending the decoded video data with graphics, wherein the satellite transport processor generates a start code table to index the video data and aligns the plurality of SLICES to a suitable boundary in an external memory— (as recited in independent claim 27).

Conclusion

11. The prior art made of record, considered pertinent to applicant's disclosure, and are not relied upon herein, are as recited in the attached PTO-892 form.

Any response to this action should be mailed to:

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Art Unit: 2676

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Hand-held delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, 6th floor (receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesner Sajous whose telephone number is (703) 308-5857. The examiner can be reached on Mondays thru Thursdays and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Supervisor, Matthew Bella, can be reached at (703) 308-6829. The fax phone number for this group is (703) 308-6606.

Wesner Sajous -WS-


/2/28/03